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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/694,296

10/28/2003

Takashi Shoji

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EXAMINER

TSANG, ELBERT

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/694,296	<b>Applicant(s)</b> SHOJI, TAKASHI	
	<b>Examiner</b> Elbert Tsang	<b>Art Unit</b> 4157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/28/2003, 04/02/2004, 02/28/2007, 11/19/2007</u> .          | 6) <input type="checkbox"/> Other: ____.                          |



## **DETAILED ACTION**

### ***Specification***

The specification is objected to as failing to provide a clear description for the claimed subject matter as follow

In claims 1 and 5, there is minor confusion as to what is “scanning.” The scanning as claimed is stating the invention is to scan a solid state detector. Following the word “scanning” should be “by,” as to properly depict the scanning is done by a device.

See 37 CFR 1.75(d)(1) and MPEP § 608.01(o) for guidance. Correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

**Claims 1, 3, 6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imai, US Patent No.: 6,376,857 B1 (hereinafter Imai '857) in view of Agano, US PGPub No.: US 2003/0015664 A1 (hereinafter Agano).**

Regarding claim 6, Imai '857 teaches:

An image readout apparatus comprising:

a solid state detector comprising: a first conductive layer; at least one photoconductive layer; and a second electrode layer having stripe electrodes formed by a plurality of linear electrodes, stacked in the order listed, [Fig. 1A, 2A, 3A; Column 2, Line 16-20; Column 10, Line 26-28] which records image data as an electrostatic latent image when irradiated with recording light bearing the image data, and generates electric current corresponding to the electrostatic latent image when scanned with readout light, [Column 2, Line 30-32] with the readout light;

a readout light scanning means for scanning the solid state detector with the readout light [Column 3, Line 38; Column 4, Line 11-12];

a current detecting means for detecting the electric current output from each of the linear electrodes by the scanning with the readout light; [Fig. 1A, 30; Column 7, Line 65-66; Column 9, Line 49-55]

an image signal obtaining means for obtaining an image signal by sampling the detected electric current at a predetermined sampling rate; [Column 1, Line 41-42] and

Imai '897 does not teach: a pixel density changing means for changing a pixel density of an image formed by the image signal, in the longitudinal direction of the linear electrodes, by changing the scanning speed of the readout light and/or the sampling rate. However, Agano does. [0077, 0097]

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use Agano's teaching in the invention of Imai because Agano teaches his invention to utilize an image read-out apparatus with transformed pixel density as claimed for benefit as stated [0021].

For claim 1, the means for conducting the steps of claim 1 correspond to the system elements of claim 6, which would have necessitated the recited means. Thus, the means for conducting steps of claim 1 have been analyzed and rejected in view of claim 6.

For claim 3, Imai '897 does not teach:

an image readout method as defined in claim 1, wherein: a pixel density of the image, in a direction perpendicular to the longitudinal direction of the linear electrodes, is changed by adding the electric current detected for each of the linear electrodes in an analog manner, according to the pixel density in the longitudinal direction of the linear electrodes. However, Agano does [0077, 0097].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use Agano's teaching in the invention of Imai because Agano teaches his invention to utilize an image read-out apparatus with transformed pixel density as claimed for benefit as stated [0021].

For claim 8, Agano discloses:

an image readout apparatus as defined in claim 6, further comprising: an adding means for adding the electric current detected from each of the linear electrodes in an analog manner.  
[0097]

**Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Imai, US Patent No.: 6,376,857 B1 (hereinafter '857) and Agano, US PGPub No.: US 2003/0015664 A1 (hereinafter Agano) as applied to claim 6 above, further in view of Imai, US Patent No.: US 6,268,614 (hereinafter '614).**

Regarding claim 10, Imai '857 and Agano do not teach: a readout speed changing means for changing the readout speed of the electrostatic latent image by changing the scanning speed of the readout light scanning means and the sampling rate in proportion with each other. However, Imai '614 does. [Column 2, Line 59-64; Imai '614 discloses that the invention provides an electrostatic recording member which allows ... a simple structure to read out a latent image in a

shorter time and a high S/N ratio. This inherently implies the change of the scanning speed and the adjustment of the sampling rate.]

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use Imai's '614 teaching in the invention of Imai '857 and Agano because Imai '614 teaches his invention to utilize a structure to read out a latent image in a shorter time. [Column 2, Line 59-64]

**Claims 2, 4, 5, 7, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imai, US Patent No.: 6,376,857 B1 (hereinafter Imai '857) and Agano, US PGPub No.: US 2003/0015664 A1 (hereinafter Agano) as applied to claim 6 above, in view of Agano, US Patent No.: 4,661,708 (hereinafter Agano '708).**

For claim 5, Imai '857 does not teach: a frequency band of the current detecting means is changed according to a readout speed of the electrostatic latent image, in the case that the readout speed is changed by changing a scanning speed of the readout light and the sampling rate in proportion with each other. However, Agano '708 does [Column 2, Line 16-21].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use Agano's '708 teaching in the invention of Imai and Agano because Agano's '708 teaches his invention to provide an image read-out apparatus which is easily



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switched between preliminary and final read-out, which correspond to change of scanning speed.

[Column 3, Line 65-67; Column 4, Line 45-49]

For claim 2, Agano '708 discloses:

an image readout method as defined in claim 1, wherein: a beam width of the readout light, in the longitudinal direction of the linear electrodes, is changed according to the pixel density in the longitudinal direction of the linear electrodes. [Abs; Column 2, Line 16-21; Column 4, Line 12-13]

For claim 4, Agano discloses:

an image readout method as defined in claim 2, wherein: a pixel density of the image, in a direction perpendicular to the longitudinal direction of the linear electrodes, is changed by adding the electric current detected for each of the linear electrodes in an analog manner, according to the pixel density in the longitudinal direction of the linear electrodes. [0077, 0097]

For claim 7, Agano '708 discloses:

the means for conducting the steps of claim 7 correspond to the system elements of claim 2, which would have necessitated the recited means. Thus, the means for conducting steps of claim 7 have been analyzed and rejected in view of claim 2.

For claim 9, Agano discloses:

an image readout apparatus as defined in claim 7, further comprising: an adding means for adding the electric current detected from each of the linear electrodes in an analog manner.

[0097]

For claim 11, an image readout apparatus as defined in claim 10, further comprising:  
a frequency band changing means for changing a frequency band of the current detecting means.  
[Column 2, Line 16-21] (Agano '708 discloses the moving speed... of the laser beam for preliminary read-out is smaller than... the final read-out. The frequency band changing means for changing a frequency band of the current is read as changing the scan speed of the image detecting device.)

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shoji (US PGPub No.: 2001/0030305) teaches an image detector that records image information as an electrostatic latent image and generates electric currents in accordance with the latent image when the image detector is scanned.

Hashimoto (US Patent No.: 6,243,440) teaches a pixel density conversion apparatus.

Shoji (US PGPub No.: 2001/0048085) teaches an image information read-out apparatus which includes an image read-out system.

Arakawa (US PGPub No.: 2004/0061061) teaches a number of light receiving portions two-dimensionally arranged along the main scanning direction and outputs electric charges after binning the electric charges in a direction perpendicular to the main scanning direction.

### ***Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELBERT TSANG whose telephone number is (571)270-3748. The examiner can normally be reached on 8:00 AM - 5:00 PM, M-F, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571) 272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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